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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,723	06/12/2007	Mitsuo Arima	112857-710	9402

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EXAMINER	
WOOD, KEVIN S	

ART UNIT	PAPER NUMBER
2874	

MAIL DATE	DELIVERY MODE
06/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,723	ARIMA ET AL.	
	Examiner	Art Unit	
	Kevin S. Wood	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-17,25 and 26* is/are rejected.

7)☒ Claim(s) *18-24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/8/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/8/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8 September 2006 has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 14, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,125,131 to Olezak (hereafter referred to as the Olezak reference).

Referring to claim 14, the Olezak reference discloses all the limitations of the claimed invention. The Olezak reference discloses an optical sheet (110) comprising cylindrical lens elements (116) which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet, wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis (r) is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following

expression:

$$Z = \frac{X^2}{R + \sqrt{\left(R^2 - (1+K)X^2\right)}}$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant. See Fig. 1, Fig. 2, Fig. 3, and Equation 1 along with their respective portions of the specification.

Referring to claim 25, the Olezak reference discloses all the limitations of the claimed invention. The Olezak reference discloses a backlight (106,108) comprising a light source (102) for emitting illumination light; and an optical sheet (110) comprising cylindrical lens elements (116) which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet, wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = \frac{X^2}{R + \sqrt{\left(R^2 - (1+K)X^2\right)}}$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant. See Fig. 1, Fig. 2, Fig. 3, and Equation 1 along with their respective portions of the specification.

Referring to claim 26, the Olezak reference discloses all the limitations of the claimed invention. The Olezak reference discloses a device that maybe used as a backlight for an LCD display (col. 1, lines 50 through 57), where the backlight (106,108) comprises a light source (102) for emitting illumination light; and an optical sheet (110) comprising cylindrical lens elements (116) which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet, wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis (r) is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = \frac{X^2}{R + \sqrt{\left(R^2 - (1+K)X^2\right)}}$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant. See Fig. 1, Fig. 2, Fig. 3, and Equation 1 along with their respective portions of the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,125,131 to Olezak.

Referring to claims 15-17, the Olezak reference discloses an optical sheet (110) comprising cylindrical lens elements (116) which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet, wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis (r) is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the

following expression:

$$Z = \frac{X^2}{R + \sqrt{\left(R^2 - (1+K)X^2\right)}}$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant. See Fig. 1, Fig. 2, Fig. 3, and Equation 1 along with their respective portions of the specification. The Olezak reference does not appear to specifically disclose the claimed ranges for R, K, and unit width D as claimed. The applicant has not disclosed the criticality of these ranges, nor have they disclosed any unexpected results from using these claimed ranges. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the claimed ranges for R, K and D, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Allowable Subject Matter

7. Claims 18-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KSW

/Kevin S Wood/
Primary Examiner, Art Unit 2874